

13. An antisense molecule comprising the nucleic acid sequence complementary to at least a portion of a polynucleotide encoding a polypeptide comprising an amino acid sequence of SEQ ID NO:2 or a naturally occurring variant thereof, or a biologically or immunologically active fragment thereof .

17. A diagnostic test for a condition associated with expression of a polynucleotide encoding a polypeptide comprising an amino acid sequence of SEQ ID NO:2 or a naturally occurring variant thereof, or a biologically or immunologically active fragment thereof , comprising:

a) combining the biological sample with the polynucleotide encoding a polypeptide comprising an amino acid sequence of SEQ ID NO:2 or a naturally occurring variant thereof, or a biologically or immunologically active fragment thereof, under conditions suitable for the formation of hybridization complex; and

b) detecting the hybridization complex, wherein the presence of the complex correlates with expression of the polynucleotide of in the biological sample.

19. An antibody which specifically binds to a polypeptide of Claim 18.

20. A diagnostic test for a condition associated with the expression of a polypeptide of SEQ ID NO:2 in a biological sample comprising:

a) combining the biological sample with the antibody of Claim 19, under conditions suitable for the antibody to bind the polypeptide and form a complex; and

b) detecting the complex, wherein the presence of the complex correlates with the expression of the polypeptide in the biological sample.

21. A method of preparing an antibody which specifically binds to a polypeptide of claim 18, comprising

a) immunizing an animal with said polypeptide or an antigenically-effective fragment thereof, under conditions whereby an antibody response is elicited; and

b) isolating from said immunized animal antibodies which specifically bind to said polypeptide.

22. A purified antibody produced by a method of claim 21.

23. A method of making a monoclonal antibody which specifically binds to a polypeptide of claim 18, comprising

a) immunizing an animal with said polypeptide or antigenically-effective fragment thereof, under conditions whereby an antibody response is elicited;

b) isolating antibody producing cells from said animal;

c) fusing said antibody producing cells with immortalized cells in culture to form monoclonal antibody-producing hybridoma cells;

d) culturing said hybridoma cells; and

e) isolating from said culture monoclonal antibodies which specifically bind to said polypeptide.

24. A monoclonal antibody produced by a method of claim 23.

25. A method of screening a compound for effectiveness as an agonist of a polypeptide of claim 18, comprising the steps of

a) contacting a sample containing said polypeptide with a compound, under conditions wherein agonist activity of said polypeptide can be detected, and

b) detecting agonist activity in the sample.

26. A pharmaceutical composition comprising an isolated agonist compound identified by a process of claim 25 and a pharmaceutically acceptable excipient.

27. A method of screening a compound for effectiveness as an antagonist of a polypeptide of claim 18, comprising the steps of

- a) contacting a sample containing said polypeptide with a compound, under conditions wherein antagonist activity of said polypeptide can be detected, and
- b) detecting antagonist activity in the sample.

28. A pharmaceutical composition comprising an isolated antagonist compound identified by a process of claim 27 and a pharmaceutically acceptable excipient.

29. A method of treating a disease or condition associated with decreased expression of a functional polypeptide comprising the amino acid sequence of SEQ ID NO:2 or a naturally occurring variant thereof, or a biologically or functionally active fragment thereof, comprising administering to a patient in need of such treatment a pharmaceutical composition of claim 26.

30. A method of treating a disease or condition associated with overexpression of a functional polypeptide comprising the amino acid sequence of SEQ ID NO:2 or a naturally occurring variant thereof, or a biologically or functionally active fragment thereof, comprising administering to a patient in need of such treatment a pharmaceutical composition of claim 28.

31. A method of treating a disease or condition associated with overexpression of a functional polypeptide comprising the amino acid sequence of SEQ ID NO:2 or a naturally occurring variant thereof, or a biologically or functionally active fragment thereof, comprising administering to a patient in need of such treatment an antibody of claim 22.

32. A method of treating a disease or condition associated with overexpression of a functional polypeptide comprising the amino acid sequence of SEQ ID NO:2 or a naturally occurring variant thereof, or a biologically or functionally active fragment thereof, comprising administering to a patient in need of such treatment a monoclonal antibody of claim 24.

33. A diagnostic test of claim 20, wherein the disease or condition is leukemia or a malignant local tumor.

34. An isolated polynucleotide comprising a sequence selected from the group consisting of:

- a) a polynucleotide sequence of SEQ ID NO:4,
- b) a naturally-occurring polynucleotide sequence having at least 90% sequence identity to the sequence of SEQ ID NO:4,
- c) a polynucleotide sequence complementary to a),
- d) a polynucleotide sequence complementary to b) and
- e) a ribonucleotide equivalent of a)-d).

35. An isolated polynucleotide comprising at least 60 contiguous nucleic acids of claim 34.

36. A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 34, the method comprising:

- a) hybridizing the sample with a probe comprising at least 20 contiguous nucleotides comprising a sequence complementary to said target polynucleotide in the sample, and which probe specifically hybridizes to said target polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide or fragments thereof, and
- b) detecting the presence or absence of said hybridization complex, and, optionally, if present, the amount thereof.

37. A method of claim 36, wherein the probe comprises at least 60 contiguous nucleotides.

38. A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 34, the method comprising:

- a) amplifying said target polynucleotide or fragment thereof using polymerase chain reaction amplification, and
- b) detecting the presence or absence of said amplified target polynucleotide or fragment thereof, and, optionally, if present, the amount thereof.

39. (As Twice Amended.) A purified polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence of SEQ ID NO:2,
- b) an amino acid sequence having at least 90% sequence identity to the sequence of SEQ ID NO:2, wherein said amino acid sequence is expressed on the surface of stem cells,
- c) a biologically-active fragment of the amino acid sequence of SEQ ID NO:2, wherein said biologically-active fragment is expressed on the surface of stem cells, and
- d) an immunogenic fragment of the amino acid sequence of SEQ ID NO:2, wherein said immunogenic fragment comprises at least 5 contiguous amino acids of SEQ ID NO:2 and is capable of generating an antibody that specifically binds to the polypeptide encoded by SEQ ID NO:2.

40. An isolated polypeptide of claim 39, having a sequence as depicted in SEQ ID NO:2.

41. A pharmaceutical composition comprising an effective amount of a polypeptide of claim 39 and a pharmaceutically acceptable excipient.

42. A pharmaceutical composition comprising an effective amount of a polypeptide of claim 40 and a pharmaceutically acceptable excipient.